

## ABSTRACT

An Ag sputtering target 6 has three-dimensional fluctuation of grain sizes of not more than 18%. The fluctuation is determined by exposing plural sputtering surfaces by slicing the sputtering target 6 in planes to initial sputtering surface, selecting plural locations on each of the exposed sputtering surfaces, calculating values A1 and B1 using the formula below, and selecting larger one of the values A1 and B1 as the three-dimensional fluctuation of the grain sizes.

$$A1 = (D_{\max} - D_{\text{ave}}) / D_{\text{ave}} \times 100 (\%)$$

$$B1 = (D_{\text{ave}} - D_{\min}) / D_{\text{ave}} \times 100 (\%)$$

$D_{\max}$ : maximum value among the grain sizes D at all the selected locations

$D_{\min}$ : minimum value among the grain sizes D at all the selected locations

$D_{\text{ave}}$ : average value of the grain sizes D at all the selected locations